



## PATENT ABSTRACTS OF JAPAN

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## (54) SEMICONDUCTOR MEMORY

## (57) Abstract

**PROBLEM TO BE SOLVED:** To obtain a CAM (content addressable memory) of a high density memory cell structure.

**SOLUTION:** A memory cell  $C_n(i, j)$  forms a non-coincidence detection circuit to detect non-coincidence between stored data of a data holding part comprising inverters I1010 and I2020 and search data obtained from a search line  $SL_j$  and a search line  $SLB_j$  by N-channel transistors N01, N11, N21 and N31. On the other hand, a memory cell  $C_p(i, j+1)$  adjacent row-wise to the memory cell  $C_n(i, j)$  forms a non-coincidence detection circuit to detect noncoincidence between stored data of a data holding part comprising inverters I212 and I2222 and a search data obtained from a search line  $SL_{j+1}$  and a search line  $SLB_{j+1}$  by a P-channel transistor P01, P11, P21 and P31.

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